NASA Facts ON LINE

STENNIS SPACE CENTER

DEVELOPMENT OF SSC AS NASA'S LEAD CENTER FOR ROCKET PROPULSION TESTING
Fact Sheet

SSC is NASA's Lead Center for Rocket Propulsion Testing In May 1996, NASA named the John C. Stennis Space Center (SSC) as its lead center for rocket propulsion testing. This assignment will consolidate all of NASA's rocket test activities under SSC's management. Stennis is now in charge of carrying out and/or managing all of NASA's rocket test programs. The decision is part of NASA's effort to become more streamlined and efficient by giving the centers more management control and responsibility in their specific missions. Stennis Space Center, in Hancock County, Miss., is one of 10 NASA centers in the United States.

Stennis Will Manage All of NASA's Rocket Propulsion Testing
Other NASA centers involved in rocket testing are: Marshall Space Flight Center, Huntsville, Ala; Lewis Research Center's Plum Brook station near Sandusky, Ohio; and Johnson Space Center's White Sands Test Facility in Las Cruces, N.M. Bringing all propulsion testing under SSC s management will give NASA a more flexible and efficient approach for future testing needs. Stennis will provide full-service test capabilities for rocket engines, stages and components for NASA, industry and other government agencies for both ambient and space environments.

NASA's Rocket Testing will be Consolidated at SSC
Some personnel and equipment from NASA's other propulsion test sites will relocate to SSC. In situations where transferring facilities is not practical, Stennis will manage the test activities at those sites. The reorganization will reduce infrastructure, such as test stands and facilities, and duplication of services. About 40 new employees will move to Stennis from other centers. NASA has redirected $45.5 million to SSC to initiate the consolidation effort. Specific activity at Stennis under the new plan includes:

- completion of the E-1 test facility, formerly named the Component Test Facility, and support facilities for testing engine components in the E complex;
- renovations and upgrades of test stands to support testing for the Reusable Launch Vehicle and

other test requirements;
- new management plans, tools and equipment to direct and monitor propulsion testing Agencywide; and,
- planning new facilities to support national needs and continue to reduce overall NASA infrastructure to support testing activities.

The History of SSC
NASA built the Stennis Space Center in the early 1960s to test the first and second stages of the Saturn V rocket for the Apollo program. Less than eight years later, American astronauts set foot on the moon. The powerful rockets that helped them get there were tested and flight certified at the South Mississippi center.

After the Apollo program ended in the early 1970s, NASA selected the Stennis Center to test the main engines for the world's first reusable spacecraft the Space Shuttle. A new era in rocket testing began in May 1975 with the first test firing of a Space Shuttle Main Engine. SSC tests all main engines that power the shuttle during its 8 1/2-minute flight to orbit. SSC will continue testing shuttle main engines well into the next century.

New Horizons in Propulsion Testing
Stennis Space Center will develop and test the engines for a new spacecraft the Reusable Launch Vehicle (RLV). The RLV program is a partnership between NASA and industry to design a new generation of launch vehicles expected to dramatically lower the costs of putting payloads in space. The first step in the RLV program will be the X-33 experimental vehicle. The reusable X-33 VentureStar will be about half the size of a full-scale RLV. SSC will conduct most of the X-33's engine testing and some of the oxygen tank testing. Testing of engine components should begin in mid- 1998, followed by full engine testing of the new aerospike engine. The first flight test of the X-33 is planned for March 1999.

SSC The Nation's Leader in Propulsion Testing
Along with its designation as lead test center, Stennis is also NASA's Center of Excellence for propulsion testing, with 30 years of successful testing experience. SSC has more experience in propulsion testing than any other facility in the United States. The center's sophisticated test facilities, experienced test personnel, waterway system and unique 125,828-acre acoustical buffer zone are all available to support the national interest in propulsion development testing.

NASA

NASA Stennis Space Center
Public Affairs Office
Stennis Space Center, MS 39529
(601) 688-3341
pao@ssc.nasa.gov

Document: FS-SSC-020 (9612)
Modified: December 1996

 Return to Stennis Fact Sheets